AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-157

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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* NOTICE: BoD Nominations Due June 15 *
* It is time to submit nominations for the upcoming open seats on *
* the AMSAT-NA Board of Directors. A nomination requires either *
* one Member Society or five current individual members to nominate *
* an AMSAT member for the position. Three director's terms expire *
* this year: Tom Clark, K3IO, Lou McFadin, W5DID and Gould Smith, *
* WA4SXM. Nominations must be in writing and mailed to: AMSAT, *
* 850 Sligo Ave #600, Silver Spring MD 20910. They can arrive no *
* later than June 15th. *
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SB SAT @ AMSAT $ANS-157.01
AMSAT-NA 2010 Symposium Announcement

AMSAT News Service Bulletin 157.01
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
BID: $ANS-157.01

AMSAT announces the 2010 AMSAT Space Symposium and Annual Meeting will be held on Friday, October 8 through Sunday, October 10. This year we have selected the Chicago/Elk Grove Holiday Inn which is near O'Hare Airport for the event. This is the same hotel that recently has hosted the Central States VHF Conference, Digital Communications Conference and NIDXCC events.

All Amateur Radio Operators interested in space communications are invited to participate in the Symposium offerings including:

+ Space Symposium with Amateur Satellite Presentations
+ Operating Techniques, News, & Plans from the Amateur Satellite World
+ Board of Directors Meeting open to AMSAT members

+ Meet Board Members and Officers
+ Annual General Membership Meeting
+ Annual Banquet-Keynote Speaker and Door Prizes
+ President's Club Reception
+ Area Coordinator's Breakfast

The Chicago/Elk Grove Holiday Inn is located at 1000 Busse Road,
Elk Grove, IL (near O'Hare Airport with free hourly shuttles).
The room rate and reservation information will be announced shortly.

Also with the 2010 Symposium Announcement please keep in mind the
Call For Papers:

This is the first call for papers for the 2010 AMSAT Space Symposium
and Annual Meeting. The Symposium Committee invites proposals for:

+ Papers for publication in the Proceedings
+ Symposium Presentations
+ Poster Presentations
+ Equipment and Operating Demonstrations

These can be on any topic of interest to the amateur satellite
community. We request a tentative title of your presentation as
soon as possible, with final copy submitted by September 1, 2010
for inclusion in the printed proceedings.

Abstracts and papers should be sent to JoAnne Maenpaa, K9JKM at
k9jkm@comcast.net. Dan Schultz, N8FGV will assist as Co-Editor of
the Proceedings.

Watch http://www.amsat.org/amsat-new/symposium/2010/index.php
for more news as it becomes available.

[ANS thanks the 2010 Symposium Committee for the above information]

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SB SAT @ AMSAT $ANS-157.02
China President Hu Jintao Visits HO-68 Operation

AMSAT News Service Bulletin 157.02
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
BID: $ANS-157.02

Michael Chen, BD5RV/1 reported that on May 31 he, along with BA1DU,
BG1TTA, BA1EO, BG1HOB accompanied Chinese President Hu Jintao as he
visited the amateur satellite station set up in the China Science
and Technology Museum in Beijing. Several children was operating
HO68 while the president was watching. Michael reported, "He encour-
aged them for further activities and confirmed the positive effects
of amateur satellites."

AMSAT-China Web Page: http://www.camsat.cn

[ANS thanks Michael Chen, BD5RV/1 for the above information]

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SB SAT @ AMSAT $ANS-157.03
AO-51 Operations Team Says New Power Control Settings

AMSAT News Service Bulletin 157.03
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
BID: $ANS-157.03

AMSAT-NA VP Operations, Drew KO4MA reported on the current status of AO-51. The satellite is currently operational with the main V/U repeater, 67 Hz PL enabled.

June 1 - June 21 FM Repeater, V/U
Uplink: 145.920 Mhz FM, PL 67Hz
Downlink: 435.300 Mhz FM

The power management routine adjusts the power output in three stages based on illumination state and battery voltage. The high setting is 1.57 watts. The mid-setting is at 290 mw, and the low setting is off.

During passes over the eastern US, especially in the morning, the Operations Team has been collecting telemetry on the 435.150 transmitter, so users may have heard the power levels toggle on 435.300. The rest of the time outside of eclipse it should be pretty steadily at the high setting. Soon after entering eclipse, if in use, the transmitter will shut off. Please do not use AO-51 when it is in eclipse.

Eclipses continue to lengthen until about July 1, then drop back to zero by the third week of August. This last period of continuous illumination will last until January 2011. AO-51 will likely only be operational while illuminated after this date.

Drew thanks Mark Hammond N8MH, Kevin Schuchmann WA6FWF, and Jim White WD0E for their help with the satellite during this period of rearranging our operational plan, and learning new tricks to keep AO-51 available as much as possible. We are approaching 6 years in orbit!

[ANS thanks AMSAT-NA VP Operations, Drew KO4MA for the above information]

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SB SAT @ AMSAT $ANS-157.04
AMSAT-OH Reports P3E S/X Band Transponder Prototype Operational

AMSAT News Service Bulletin 157.04
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
BID: $ANS-157.04

Michael, OH2AUE has written the latest news of the AMSAT-OH S/X band coherent/linear transponder for P3E project. The Coherent mode is a fully functional testbed for the P5A ranging transponder.

The Finnish team meets on a regular basis every 4 - 6 weeks for testing and to followup on the work of each individual. The team has assembled the linear transponder prototype and verified it with over-the-air tests and laboratory tests. Flight versions of the submodules are being produced at this time with the goal of integrating them and cabling the S/X transponder.

Full verification of the Coherent Mode is awaiting a fully functional command station AND a functional IHU + CAN environment. Preliminary testing and evaluation of the Coherent Processor have shown proper operation of the design and circuitry (e.g. locking onto a "modulated"

uplink carrier, tracking this etc.).

The general design, block diagrams, and photos can be found on-line at: http://www.rats.fi/rats/amsat-oh/ It is currently in Finnish but the team hopes you will enjoy it.

This transponder is especially complex as you can see from these key on figures on the web page:

* 9 different local oscillators
* All local oscillators locked to the common 10 MHz USO
* 21 different frequency mixers
* 13 different intermediate frequencies
* Linear Mode output power on 10 GHz: 3 W PEP
* P5A Mode output power on 10 GHz: 1 mW PEP
* 38 control lines on the CAN interfaces
* 2 CAN interfaces, one in multiplexed mode
* 4 dedicated direct control lines interfacing with the IHU
* 14 analogue telemetry lines to the CAN bus
* Coherent Mode Uplink/Downlink ratio is fixed at 30:7

Michael concludes, "Our team sincerely hopes funding will eventually be found for P3E/P5A - this is the only thing that keeps us motivated to continue our work. On the other hand we are clearly behind schedule, so the delays are welcome. But then again, any news of progress would boost our production rate phenomenally!"

[ANS thanks Michael, OH2AUE for the above information]

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SB SAT @ AMSAT $ANS-157.05
Canberran Students Enjoy ARISS Ham Radio Contact

AMSAT News Service Bulletin 157.05
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
BID: $ANS-157.05

A very successful Amateur Radio on the International Space Station (ARISS) was completed this week. Jim Linton, VK3PC provided this information to the SouthGate ARC News site; the story is reprinted below:

Ten students from the Trinity Christian School at Wanniassa in the Australian Capital Territory made history at the weekend with the first Amateur Radio on the International Space Station (ARISS) program contact to be held in Canberra.

The event was part of the Wireless Institute of Australia (WIA) centenary dinner attended by 200 people including international guests, Australian Communications and Media Authority Chairman Chris Chapman, and WIA Centenary Patron Dick Smith VK2DIK.

A telebridge ON4ISS in Belgium (operator Philippe Van houte, ON5PV) made the contact with ARISS Asia-Pacific Coordinator, Tony Hutchison VK5ZAI at the controls in Canberra for the contact on Saturday, 29 May.

The audience remained quiet and listened intently as the Year 12 students asked Astronaut and Flight Engineer Tracy Caldwell-Dyson KF5DBF, on her assignment on the space station, a series of questions.

The session began with a brief speech by Tracy who congratulated the WIA on its centenary and commented briefly on amateur radio's history and amateur satellites.

Student William Shaw, asked: When you are in space, are you "above" the law? If there was a legal issue that arose on the space station which nation's law would apply?

Tracy replied that she did not foresee that there would be a legal problem on the space station and added that there were controls on what could occur in space.

Another student, Elizabeth Shen, asked about living is space with zero gravity, its effects on the body and whether there were changes to the normal blood pressure and pulse rate.

It was learnt in Tracy's response that the crew are constantly monitored, there are effects and rehabilitation on return to earth can take up to three months.

In other questions the topics of sleeping in an environment with 16 sunrises and sunsets a day, space walking - Tracy is to have that experience soon - and the potential for collision with solid matter in space.

After the ARISS contact Elizabeth Shen and William Shaw said they were both extremely impressed by the efforts made by astronauts to qualify and fly in space, giving them encouragement to strive in their chosen careers.

Elizabeth, aged 17 added: 'The opportunity to speak to someone above the space station was one of the best experiences in her life.'

While William, aged 18, said 'It was really cool to be able to talk to someone who is in a completely different situation - with the zero gravity and what not.'

Trinity Christian School Principal, Carl Palmer VK2TP/VK1TP was justifiably very proud of his students.

WIA President Michael Owen VK3KI presented each with a participation certificate. WIA Centenary Patron Dick Smith VK2DIK - aviator, adventurer and entrepreneur - shook their hands, spoke to them about their experience and had his photograph taken with them.

Originally posted at: SouthGateARC http://tinyurl.com/22lxg2d

Wireless Institute of Australia posting, including contact audio: http://tinyurl.com/2dubf7a

[ANS thanks Jim Linton, VK3PC; Richard Brunton, G4TUT; and the Southgate ARC for the above information]

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SB SAT @ AMSAT $ANS-157.06
AMSAT-India Announces Re-Organization

AMSAT News Service Bulletin 157.06
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
BID: $ANS-157.06

Nitin, VU3TYG, Secretary, AMSAT-India reported on a May 26 reorganization of the post of President and Vice-President for AMSAT-India Organization update for post of President and Vice President.

Current president Air Commodore Suby, VU2UV stepped down from the post citing health reasons. As a result, Ramesh, VU2RMS has taken the role of President, AMSAT-India.

Dr. Ved Prakash Sandlas, VU2VP was elected Vice-President, AMSAT-India.

AMSAT-India thanked Suby, VU2UV for his guidance to AMSAT-India during his tenure. Suby will continue to hold a seat on the core committee.

[ANS thanks Nitin, VU3TYG, Secretary, AMSAT-India for the above information]

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SB SAT @ AMSAT $ANS-157.07
AMSAT Awards

AMSAT News Service Bulletin 157.07
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
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AMSAT Director Contests and Awards, Bruce Paige, KK5DO says congratulations are in order for these Amateur Radio Operators:

The following have entered into the Satellite Communicators Club for making their first satellite QSO:

Brennan Price, N4QX
John Neeley, W6ZKH
Ed Empey, WA7ETH
Jennifer Melfi, KC2TMA

The following have earned the AMSAT Communications Achievement Award:

Larry Teran, KI6YAA, #512
John Neeley, W6KZH, #513
Gerry Krebs, N0JE, #514
Hugh Empey, W7ETH, #515

The following have earned the W4AMI Achievement Award for 1000 contacts:
Evangelos Kafetzopoulos, SV1EEK, endorsement from 3000 to 4000

The following have earned the W4AMI Achievement Award for 5000 contacts:
Evangelos Kafetzopoulos, SV1EEK, #23

The following have earned the South Africa AMSAT Communications Achievement Award

Larry Teran, KI6YAA, #US145
Gerry Krebs, N0JE, #US146
Hugh Empey, WA7ETH, #US147

To see all the awards visit http://www.amsat.org.

[ANS thanks AMSAT Director Contests and Awards, Bruce Paige, KK5DO
 for the above information]

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SB SAT @ AMSAT $ANS-157.08
New Items at the AMSAT Online Store

AMSAT News Service Bulletin 157.08
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
BID: $ANS-157.08

Wearing his AMSAT On-line Store Manager hat, Bruce Paige, KK5DO
says he has added the following items to the AMSAT online store:

2010 Red Baseball Cap with AMSAT logo
2010 Gold ARISSat-1 Tee Shirt
2010 Tan AMSAT Golf Shirt
2010 Getting Started with Amateur Satellites
AMSAT - The First Forty Years
2010 Laminated Frequency Guide

If you are interested in any of the limited supply items, now is
the time to order. Visit the AMSAT Online Store at:
http://www.amsat-na.com/store/categories.php

[ANS thanks Bruce, KK5DO for the above information]

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SB SAT @ AMSAT $ANS-157.09
AO-51 Operations Team Announces Field Day Schedule

AMSAT News Service Bulletin 157.09
>From AMSAT HQ SILVER SPRING, MD.
June 6, 2010
To All RADIO AMATEURS
BID: $ANS-157.09

It's that time of year again; summer and Field Day! Each year
the American Radio Relay League (ARRL) sponsors Field Day as an
emergency preparedness exercise. The event takes place during
a 24-hour period on the fourth weekend of June.

For 2010 the event takes place during a 27-hour period from 1800 UTC
on Saturday June 26, 2010 through 2100 UTC on Sunday June 27, 2010.
Those who set up prior to 1800 UTC on June 26 can operate only 24
hours.

The Radio Amateur Satellite Corporation (AMSAT) promotes its own
version of Field Day for operation via the amateur satellites,
held concurrently with the ARRL event.

AMSAT Field Day Rules are available on-line at:
http://www.amsat.org/amsat-new/awards/amsatfd.php
This page also includes instructions on how to report your score.

AMSAT-NA VP Operations, Drew KO4MA says the AO-51 Command Team and
Operations Group has announced the AO-51 configuration for Field Day:

June 21 10:40Z - June 24 09:35Z FM Repeater, V/S to allow testing
of V/S station equipment prior to Field Day:
  Uplink: 145.880 Mhz FM
  Downlink: 2401.200 Mhz FM

June 24 09:35Z - June 27 06:40Z FM Repeater, V/U
Please observe the 1 QSO per repeater Field Day rule
  Uplink: 145.920 Mhz FM, PL 67Hz
  Downlink: 435.300 Mhz FM

June 27 06:40 - June 27 22:00Z FM Repeater, V/S
Please observe the 1 QSO per repeater Field Day rule
  Uplink: 145.880 Mhz FM
  Downlink: 2401.200 Mhz FM

June 27 22:00Z - July 5 FM Repeater, V/U
Post-Field Day Configuration
  Uplink: 145.920 Mhz FM, PL 67Hz
  Downlink: 435.300 Mhz FM

AO-51 Echo Mode Suggestion Email Address is: ao51-modes@amsat.org

The latest AO-51 Command Team and Operations Group News can be found
on-line at: http://www.amsat.org/amsat-new/echo/CTNews.php

[ANS thanks the UNITEC-1 Team, AMSAT-DL, AMSAT-UK, and the SouthGate
 site for the above information]

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In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining donors
to AMSAT Project Funds, will be eligible to receive additional benefits.
Application forms are available from the AMSAT Office. And with that,
please keep in mind this advice to a student pilot, "A thunderstorm is
never as bad on the inside as it appears on the outside. It's worse!
If you push the stick forward, the houses get bigger, if you pull the
stick back they get smaller. Try to keep the number of your landings
equal to the number of your takeoffs."

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM
K9JKM at amsat dot org